

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. **(Currently amended)** A method for handling a broadcast packet in a gateway computer (131, 132, 612, 622, 632, 711, 721, 731, 741, 1111, 1112, 1301) that has an IPsec-protected connection to a part (121, 122, 141, 732, 733, 742, 743, 1113, 1114) of a logical network segment (101, 601, 701, 1101) within which the broadcast packet should be distributed, wherein the IPsec protection specifies[[,]] what kinds of packets are acceptable for transmission over the IPsec-protected connection, characterized in that the method comprises the steps of:

- encapsulating (204, 311, 508, 835, 838, 840, 842, 849, 852, 909) the broadcast packet into a form that is acceptable for transmission over the Ipse-protected connection ~~and~~
- transmitting (205, 206, 312, 509, 836, 839, 841, 843, 850, 853, 910) the encapsulated broadcast packet to the part of the logical network segment through the IPsec-protected connection
- checking (905), whether there are such unprotected connections from the gateway computer to parts of the logical network segment within which the broadcast packet should be distributed, from which unprotected connections the broadcast packet was not received to the gateway computer, and
- if such unprotected connections are found, transmitting (906) the broadcast packet as such to those unprotected connections.

2. **(Originally Presented)** A method according to claim 1, characterized in that it comprises the steps of:

- duplicating (204, 311, 508, 835, 838, 840, 842, 849, 852, 909) the broadcast packet into as many copies as there are IPsec-protected connections from the gateway computer (131, 132, 612, 622, 632, 711, 721, 731, 741, 1111, 1112, 1301) to such parts of the logical network segment (101, 601, 701, 1101) to which the broadcast packet should be transmitted, and
- repeating said encapsulating and transmitting steps in respect of every duplicated copy of the broadcast packet, so that at each repetition a duplicated copy of the broadcast packet is encapsulated into a form that is acceptable for transmission over an IPsec-protected

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connection to a pan to which it was not yet transmitted and from which the broadcast packet was not received, and thereafter such an encapsulated broadcast packet is transmitted to such a part.

3. **(Originally presented)** A method according to claim 2, characterized in that the step of duplicating (204, 311, 508, 835, 838, 840, 842, 849, 852, 909) the broadcast packet comprises the substeps of:

- in case there exists a bunch of currently existing IPsec-protected connections (1211, 1212, 1213, 1214) that begin at the gateway computer and end at a certain same receiving device, which is part of the logical network segment, selecting only one IPsec-protected connection from each such bunch and

- refraining from duplicating the broadcast packet into more than one copy per bunch; so that from the gateway computer to said certain receiving device an encapsulated copy of the broadcast packet is only transmitted through the selected IPsec-protected connection.

Cancel claim 4.

5. **(Originally presented)** A method according to claim 1, characterized in that the encapsulating step comprises adding new headers (411, 412) to the broadcast packet, which new 15 headers include a new IP header (411) and a security header (412), of which the new IP header (411) identifies an endpoint of the IPsec-protected connection as the intended destination of the encapsulated broadcast packet and the security header (412) conforms to security features of the IPsec protection.

Cancel claims 6 – 21.